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10/550,607	11/29/2005	Thomas Grafenauer	P28533	4105
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EXAMINER PLUMMER, ELIZABETH A				
ART UNIT		PAPER NUMBER		
3635				
NOTIFICATION DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/550,607

Applicant(s)

GRAFENAUER ET AL.

Examiner

ELIZABETH A. PLUMMER

Art Unit

3635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-23 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-23 and 28-31 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-06)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's amendments and arguments received 07/16/2009 have been entered and considered. Claims 25-27 have been canceled. Claims 30-32 have been added. An examination of pending claims 1, 2, 4-23 and 28-32 is herein presented.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Meyerson (US Patent 5,086,599). Regarding claim 1, Meyerson discloses a device for connecting and locking building boards comprising a top side and a bottom side, having a core made of wood material and provided with a groove on at least two opposite sides, comprising an insert (40) intended for locking purposes, which insert can be inserted into the groove (Fig. 15,16) of one of the side edges, the boards being connected by substantially horizontal displacement toward the other, wherein the insert is provided with one resilient lip extending upward from a first side edge directed toward the top side (see bottom of 40) and another resilient lip extending downward from a second side edge directed toward the bottom side of the insert (see top of 40). Also, the at least one of the resilient lip and the another resilient lip can compress towards a center of the insert (by pushing it towards the middle member 41) and then spring back out from the center of the insert when the boards are connected by the substantially

horizontal displacement, and then spring back out from the center of the insert when the boards are connected by the substantially horizontal displacement.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2, 4-5, 7-12, 14-20, 24, 28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martensson (WO 00/20705) in view of Haid (US Patent 4,599,841).

a. Regarding claim 1, Martensson discloses a device for connecting and locking building boards (1) comprising a top side and a bottom side having core made of wood (page 1, line 6) material and provided with a groove (4) on at least two opposite side edges comprising an insert (10) intended for locking purposes, wherein the insert can be inserted into the groove (4) of one of the side edges, the boards being connected by substantially horizontal displacement one toward the other, wherein the insert is provide with two resilient lips (Fig. 7b, 7c, 7d) directed toward the top side or the bottom side. While Martensson discloses lips that can extend upward from a first side edge toward the top side of the insert (Fig. 7a,7b,7c) and the lips can compress toward a center of the insert then spring back out from the center of the insert when the boards are connected by the substantial horizontal displacement (Fig. 7b,7c) and lips that can extend

downward and be directed toward the bottom side of the insert (Fig. 7d) and the lips can compress toward a center of the insert then spring back out from the center of the insert when the boards are connected by the substantial horizontal displacement, Martensson disclose not disclose one embodiment wherein one resilient lip extends upward from a first side edge directed toward the top side of the insert and another resilient lip extends downward from a second side edge directed toward the bottom side of the insert. However, it is notoriously well known in the art that inserts can have two resilient lips wherein one resilient lip extends upward from a first side edge directed toward the top side of the insert and another resilient lip extends downward from a second side edge directed toward the bottom side of the insert. For example, Haid teaches a device for connecting and locking building boards comprising a top side and a bottom side, having a core made of wood material and provided with a groove on at least two opposite side edges, comprising an insert (5) intended for locking purposes, which can be inserted into the groove of one of the sides edges (Fig. 1,6), the boards being connected by substantially horizontal displacement toward one the other, wherein the insert is provided with one resilient lip extending upset from a first side directed toward the top side of the insert (top 8) and another resilient lip extending downward from a second side edge directed toward the bottom side of the insert (bottom 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martensson to include one resilient lip extends upward from a first side edge directed toward the top side of

the insert and another resilient lip extends downward from a second side edge directed toward the bottom side of the insert, such as taught by Haid, in order to make the insert more fully engage the grooves of the boards, creating a stronger connection.

- b. Regarding claim 2, the one and another resilient lips directed in the opposite direction (Fig. 7b,7c,7d).
- c. Regarding claim 4, the resilient lip has a tip running obliquely to the top side and bottom sides, which tip, cooperates with an obliquely running edge (Fig. 7b,7c).
- d. Regarding claim 5, the insert is plastic (page 8).
- e. Regarding claim 7, the insert has a midway between the one and another resilient lips which rests on a shoulder, running parallel to the bottom side of the bottom lip of the groove (Fig. 7c).
- f. Regarding claim 8, when the building boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core material of the boards (Figs. 7a,7b,7c,7d).
- g. Regarding claim 9, the angle of inclination between the obliquely running edge measures between 90 and 135 degrees (Fig. 7b,7c).
- h. Regarding claims 10-12, Martensson in view of Haid discloses the invention as claimed except for specifying the thickness of the insert, the depth of penetration of the groove, or the flexural modulus of the plastic. However, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide a structure within the claimed range, as it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In *re Aller*, 105 USPQ 233.

- i. Regarding claim 14, the side edges of the insert taper outward (Fig. 7c).
- j. Regarding claims 15 and 16, Martensson in view of Haid discloses the invention as claimed except for the side edges of the insert being rounded or conical. However, it would have been a matter of obvious design choice to form the side edges as rounded or running conically, as such a modification would have involved a mere change in shape of a component. A change in shape is generally recognized as being within the level of ordinary skill in the art. In *re Dailey*, 149 USPQ 47 (CCPA 1966).
- k. Regarding claim 17, claim 17 is a product by process claim. The patentability of a product does not depend on its method of production. The insert is inserted into a groove (abstract), and the final product does not vary regardless of whether or not the insert is inserted at a factory site.
- l. Regarding claims 18 and 19, the insert can be permanently connected by glue (page 7).
- m. Regarding claim 20, the patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable

even though the prior product was made by a different process. In this case, the board (1) has grooves (4).

n. Regarding claim 24, when the building boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core material of the boards (Figs. 7a,7b,7c,7d), and an upper surface of the insert abuts a lip of one of the building boards, the lip defining a groove that receives a tongue of another one of the building boards (Fig. 2a).

o. Regarding claim 28, as modified in claim 1, the one resilient lip extending upward from the first side edge is the only lip that extends upward from the first side edge (Fig. 7b,7c), and the another resilient lip extending downward from the second side edge is the only lip that extends downward from the second side edge (Fig. 7d).

p. Regarding claim 30, as modified in claim 1, the one resilient lip is the only lip that extends from the first side edge, and the another resilient lip is the only lip that extends from the second side edge (Fig. 7,b,7c; 7d).

o. Regarding claim 31, the device is capable of working when the boards are mutually connected such that an upper surface of the top side of the insert contacts a lip or tongue of a first one of the boards, and the upper surface of the top side of the insert and the lip or tongue of the first one of the boards are disposed within the groove of a second one of the boards (Fig. 7b-7d).

5. Claims 1, 13 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martensson (US Patent 6,763,643) in view of Haid (US Patent 4,599,841).

a. Regarding claim 1, Martensson discloses a device for connecting and locking building boards (1) comprising a top side and a bottom side having core made of wood material and provided with a groove (4) on at least two opposite side edges comprising an insert (10) intended for locking purposes, wherein the insert can be inserted into the groove (4) of one of the side edges, the boards being connected by substantially horizontal displacement one toward the other, wherein the insert is provide with at least on resilient lip (Fig. 7b, 7c, 7d) directed toward the top side or the bottom side. While Martensson discloses lips that can extend upward from a first side edge toward the top side of the insert (Fig. 7a,7b,7c) and the lips can compress toward a center of the insert then spring back out from the center of the insert when the boards are connected by the substantial horizontal displacement (Fig. 7b,7c) and lips that can extend downward and be directed toward the bottom side of the insert (Fig. 7d) and the lips can compress toward a center of the insert then spring back out from the center of the insert when the boards are connected by the substantial horizontal displacement, Martensson does not disclose one embodiment wherein one resilient lip extends upward from a first side edge directed toward the top side of the insert and another resilient lip extends downward from a second side edge directed toward the bottom side of the insert. However, it is notoriously well known in the art that inserts can have two resilient lips wherein one resilient lip extends upward from a first side edge directed toward the top side of the insert and another resilient lip extends downward from a second side edge directed

toward the bottom side of the insert. For example, Haid teaches a device for connecting and locking building boards comprising a top side and a bottom side, having a core made of wood material and provided with a groove on at least two opposite side edges, comprising an insert (5) intended for locking purposes, which can be inserted into the groove of one of the sides edges (Fig. 1,6), the boards being connected by substantially horizontal displacement toward one the other, wherein the insert is provided with one resilient lip extending upset from a first side directed toward the top side of the insert (top 8) and another resilient lip extending downward from a second side edge directed toward the bottom side of the insert (bottom 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martensson to include one resilient lip extends upward from a first side edge directed toward the top side of the insert and another resilient lip extends downward from a second side edge directed toward the bottom side of the insert, such as taught by Haid, in order to make the insert more fully engage the grooves of the boards, creating a stronger connection.

b. Regarding claim 13, the board can be provided on one side with a tongue (22) pointing substantially in the transverse direction and on the other side edge with a groove (21) corresponding thereto (Fig. 8).

c. Regarding claim 28, the one resilient lip extending upward from the first side edge is the only lip that extends upward from the first side edge (Fig. 7b,7c),

and the another resilient lip extending downward from the second side edge is the only lip that extends downward from the second side edge (Fig. 7d).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martensson (WO 00/20705) in view of Haid (US Patent 4,599,841), as applied to claim 1 above, and in further in view of Riedi (US Patent 2,863,185). Regarding claim 6, Martensson in view of Haid discloses the invention as claimed except for the insert having at least one cavity. However, it is notoriously well known in the art that inserts can comprise a cavity. For example, Riedi teaches an insert (10) for connecting and locking boards (16), wherein the insert comprises at least one cavity (Fig. 1,2,3,4) in order to more easily deform to fit inside the grooves of the board. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martensson in view of Haid to include at least one cavity, such as taught by Riedi, in order to make the device easier to install.

7. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyerson (US Patent 5,086,599).

a. Regarding claim 21, the one resilient lip extends from the first side edge toward a center of the insert, and the another resilient lip extends from the second side edge toward the center of the insert. Meyerson does not disclose that the length of the one lip is greater than half the distance between the first side edge and the center of the insert and that the length of the another lip is greater than half the distance between the second side edge and the center of the insert. However, it would have been a matter of obvious design choice to

make the lips a longer length such that the length is greater than half the distance between the side edges and the center of the insert, as such a modification would have involved a mere change in size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

b. Regarding claim 22, each of the one and another resilient lips includes a fixed end attached to a body of the insert (Fig. 15,16), a free end opposite the fixed end (Fig. 15,16) and an oblique tip at the free end, which, for locking, instructed and arranged to cooperate with an obliquely running edge of the building board (Fig. 16).

c. Regarding claim 23, the insert comprises an upper surface step—shaped profile that allows the first resilient lip to be compressed and a lower surface step-shaped profile that allows the second resilient lip to be compressed (Fig. 15,16).

8. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martensson (US Patent 6,763,643) and Haid (US Patent 4,599,841), as applied to 28 above, in further view of Riedi (US Patent 2,863,185). Regarding claim 29, Martensson discloses each resilient lip having a tip running obliquely to the top and side and bottom side (Fig. 7b,7c), the tip, for locking, cooperates with an obliquely running edge (along the tip), when the boards are mutually connected, the insert is essentially fully surrounded in its peripheral contour by the core made of wood material of the boards (Fig. 7b,7c) and the board is provided on one side edge with a tongue pointing

substantially in the transverse direction and on the other side edge with a groove corresponding thereto. Martensson does not the insert having at least one cavity. However, it is notoriously well known in the art that inserts can comprise a cavity. For example, Riedi teaches an insert (10) for connecting and locking boards (16), wherein the insert comprises at least one cavity (Fig. 1,2,3,4) in order to more easily deform to fit inside the grooves of the board. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Martensson to include at least one cavity, such as taught by Riedi, in order to make the device easier to install.

Allowable Subject Matter

9. Claim 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed 07/16/2009 have been fully considered but they are not persuasive (with the exception of the typographical errors pointed out by the applicant, such as claim 24 not being in the heading yet still being explained as rejected on the merits). Concerning applicant's substantive arguments, many of the applicant's arguments concern the phrase "wherein at least one of the one resilient lip and the another resilient lip compress toward a center of the insert and then springs back from the center of the insert when the boards are connected by substantially horizontal displacement." First, note that the claims are all directed towards "A device", as seen in line 1 of claim 1. The claims are not directed towards the combination of the boards

and the device, but only the subcombination of the device itself. Because the claim is drawn to only the device, limitations concerning where the device sits in relation to the groove or features of the board itself are merely functional language. As functional language, the device only has to be capable of meeting this function. Furthermore, if the phrase was to be interpreted as being more than just functional language or a capability statement, new problems would arise. In that second scenario the phrase would appear to be trying to incorporate a method of assembly the board and/or an intermediate step. However, only the final product of an apparatus claim determines patentability, regardless of how the product is put together. Regarding applicant's arguments concerning the lack of an oblique tip, the tips as the surface 11 above to be slanted rather than perpendicular.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELIZABETH A. PLUMMER whose telephone number is (571)272-2246. The examiner can normally be reached on Monday through Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571) 272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./
Supervisory Patent Examiner, Art Unit 3635

/E. A. P./

Examiner, Art Unit 3635